Claims

What is claimed is:

1. A transom mounted watercraft drive unit comprising:

a) a support plate mounted to the watercraft transom, said support plate having a sleeve for receiving a first drive shaft, said first drive shaft extending through said transom and said transom sleeve;

b) an upper bracket and a lower bracket mounted to said support plate, said upper bracket having an upper pivot attachment means and said lower bracket having a lower pivot attachment means;

c) a pivot member pivotally attached to said support plate between said upper bracket and said lower bracket at said upper and lower pivot attachment means whereby said pivot member may be pivoted horizontally;

d) a double universal joint positioned within said pivot member, said double universal joint being connected to said first drive shaft;

e) a drive shaft housing pivotally connected to said pivot member whereby said drive shaft housing may be pivoted vertically on said pivot member;

f) a second drive shaft positioned within said drive shaft housing, said second drive shaft connected to said double universal joint whereby said drive shaft maybe pivoted vertically and horizontally;

g) a propeller mounted to said second propeller shaft;

h) a single action spring-return hydraulic ram, said ram having a housing, a piston and a piston rod, said housing being pivotally attached to said pivot member and said piston rod being pivotally attached to said drive shaft housing; and

i) means for moving said piston and thereby said piston rod of said hydraulic ram to raise and lower said drive shaft housing and thereby said propeller.

2. The watercraft drive unit as recited in claim 1, further comprising a steering arm for moving said pivot member and thereby said shaft housing horizontally with respect to the said watercraft.

3. The watercraft drive unit as recited in claim 2, wherein said further comprising means for remotely controlling the movement of said piston of said hydraulic ram.

4. The watercraft drive unit as recited in claim 3, wherein said shaft housing includes a bearing for supporting said second shaft member.

5. The watercraft drive unit as recited in claim 5, wherein said propeller is a weedless propeller.

6. The watercraft drive unit as recited in claim 5 wherein said steering arm is hydraulically actuated.

7. The watercraft drive unit as recited in claim 3, wherein said spring-return hydraulic ram includes a gas-return mechanism.

8. The watercraft drive unit as recited in claim 3, further comprising a skeg plate attached to said drive shaft housing.

9. The watercraft drive unit as recited in claim 8, further comprising a shroud covering pivot member and said universal joint.

10. A transom mounted watercraft drive unit comprising:

a) a pivot member pivotally attached to the transom of a watercraft whereby said pivot member may be pivoted horizontally with respect to the longitudinal axis of the watercraft;

b) a first drive shaft extending through said transom to said pivot member;

c) a double universal joint positioned within said pivot member, said double universal joint being connected to said first drive shaft;

d) a drive shaft housing pivotally connected to said pivot member whereby said drive shaft housing may be pivoted vertically on said pivot member;

e) a second drive shaft positioned within said drive shaft housing, said second drive shaft connected to said double universal joint whereby said drive shaft maybe pivoted both vertically and horizontally;

f) a propeller mounted to said second propeller shaft;

g) a single action spring-return hydraulic ram, said ram having a housing, a piston and a piston rod, said housing being pivotally attached to said pivot member and said piston rod being pivotally attached to said drive shaft housing; and

h) means for moving said piston and thereby said piston rod of said hydraulic ram to raise and lower said drive shaft housing and thereby said propeller.

11. The watercraft drive unit as recited in claim 10, further comprising a steering arm for moving said pivot member and thereby said shaft housing horizontally with respect to the said watercraft.

12. The watercraft drive unit as recited in claim 11, wherein said further comprising means for remotely controlling the movement of said piston of said hydraulic ram.

13. The watercraft drive unit as recited in claim 10, wherein said shaft housing includes a bearing for supporting said second shaft member.

14. The watercraft drive unit as recited in claim 12 wherein said steering arm is hydraulically actuated.

15. The watercraft drive unit as recited in claim 14, wherein said propeller is a weedless propeller.

16. The watercraft drive unit as recited in claim 15, wherein said spring-return hydraulic ram includes a gas-return mechanism.

17. The watercraft drive unit as recited in claim 16, further comprising a skeg plate attached to said drive shaft housing.

18. The watercraft drive unit as recited in claim 17, further comprising a cavitation plate mounted on said shaft housing above said propeller.

19. A method of propelling a watercraft in shallow water comprising the steps of:

(a) pivotally attaching a box to the transom of said watercraft whereby said a said box may be pivoted horizontally with respect to the longitudinal axis of the watercraft;

(b) extending a first drive shaft through said transom to said box;

c) attaching a double universal joint to said first drive shaft;

d) pivotally attaching a drive shaft housing to said box pivot member whereby said drive shaft housing may be pivoted vertically on said box;

e) connecting a second drive shaft to said double universal joint whereby said drive shaft maybe pivoted both vertically and horizontally;

f) mounting a propeller to said second propeller shaft;

g) attaching a single action spring-return hydraulic ram, said ram having a housing, a piston and a piston rod, whereby said housing is pivotally attached to said box and said piston rod is pivotally attached to said drive shaft housing; and

h) providing means for moving said piston and thereby said piston rod of said hydraulic ram to raise and lower said drive shaft housing and thereby said propeller.

20. The method as recited in claim 19, further comprising the steps of:

(a) attaching a steering arm to said box for turning said box and thereby said shaft housing horizontally with respect to the said watercraft;

(b) providing means for remotely controlling the movement of said piston of said hydraulic ram;

(c) supporting said second shaft member on bearings within said shaft housing;

(d) attaching a skeg plate to said drive shaft housing; and

(e) attaching a cavitation plate on said shaft housing above said propeller.